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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/044,407	01/11/2002	Dennis M. Hilton	621P001	8920

7590

06/04/2003

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EXAMINER

TOOMER, CEPHIA D

ART UNIT

PAPER NUMBER

1714

DATE MAILED: 06/04/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/044,407

Applicant(s)

HILTON ET AL.

Examiner

Cephia D. Toomer

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1714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: .

DETAILED ACTION

1. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

2. Claims 8 and 11 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Applicant's intended use of the foam does not further limit the method of producing the foam.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claim 12 is rejected under 35 U.S.C. 102(b) as being anticipated by Chao (US 5,109,030).

Chao teaches a foamed hydraulic composition comprising a copolymeric foam stabilizer (see abstract) Chao also teaches that the prior art has used polyvinyl alcohol as a foam stabilizer (see col. 1, lines 53-58). The hydraulic substance may be Portland cement, gypsum (calcium sulfate hemihydrate) (see col. 3, lines 11-22). The composition may also contain accelerators and retarders (see col. 6, lines 33-37). Chao

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teaches that the foam compositions may be prepared by any method known in the art including using compressed air and water(see col. 6, lines 57-68; col. 7, lines 1-14).

Chao also teaches that the composition may be sprayed onto horizontal or vertical surfaces and functions as a fireproofing material(see col. 7, lines 51-64).

Accordingly, Chao teaching all the material limitations of the claim, anticipates the claim.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chao (US 5,109,030) further in view of SU 1743887.

Chao has been discussed above. Chao fails to teach the claimed method of making the foam. However, SU teaches this limitation.

SU teaches a method of preparing foam wherein compressed air and the foaming solution are fed from two different hoses to a vortex generating sleeve wherein the sleeve creates turbulent flow conditions between the air and solution and produces foam (see abstract and drawing in their entireties).

It would have been obvious to one of ordinary skill in the art to have selected the claimed method of producing the foam because Chao teaches that any method known

in the art may be used to prepare the foam and SU teaches that the method of its invention produces a high quality foam.

Chao also fails to teach that polyvinyl alcohol is the foam stabilizer. However, since Chao teaches that the prior art uses these compounds as foam stabilizers it would have been obvious to combine the stabilizer of Chao with polyvinyl alcohol because it is prima facie obvious to combine two known components each having the same function to produce a third component having the same function, or it would have been obvious to replace the stabilizer of Chao with a stabilizer that is a functional equivalent such as polyvinyl alcohol.

7. Claims 7-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chao and SU 1743887 as applied to claims above, and further in view of Nebesnak (US 6,475,275).

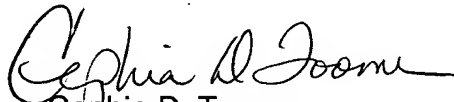
Chao and SU have been discussed above. Chao teaches accelerators such as calcium chloride (see col. 6, lines 33-35), but Chao fails to teach the use of aluminum sulfate as an accelerator. However, Nebesnak teaches that aluminum sulfate and calcium chloride are art recognized equivalents (*see Col. 3, lines 21-33*).

It would have been obvious to one of ordinary skill in the art to have replaced calcium chloride with aluminum sulfate as the accelerator because Nebesnak teaches that they are art recognized equivalents.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cephia D. Toomer whose telephone number is 703-308-2509. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 703-306-2777. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.


Cephia D. Toomer
Primary Examiner
Art Unit 1714

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June 2, 2003